UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,765	07/20/2005	Koji Takao	124788	1684

25944 7590 08/24/2007

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER	
NGUYEN, HUNG T	
ART UNIT	**PAPER NUMBER**
2612	

MAIL DATE	DELIVERY MODE
08/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/542,765	TAKAO ET AL.	
	Examiner	Art Unit	
	HUNG T. NGUYEN	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/20/05 & Petition filed on 7/13/07*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 July 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/20/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 7 & 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the next sampling" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the next sampling" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the next sampling" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 5 & 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Schroeter et al. (JP 10-104103) / IDS is provided by applicant filed on July 20, 2005.

Regarding claim 5, Schroeter discloses a tire information having sensors (A,B,C,D) coupled with a reception module (13) and microprocessor (18) to monitor pressure and temperature of tires [fig.1, paragraphs 0008, 0035-0036 and abstract] comprising:

- the reception module (13) having a plurality of antenna (A to N) [fig.1, paragraphs 0008-009, 0035-0036 and abstract];
- a single reception body (15) coupled with the reception module (13) [fig.1, 0008, 0035-0036 and abstract];
- the single reception body (15) coupled with the microprocessor (18) to detect the pressures and temperature has been programmed in A/D converter (16) and provide output signal to operator [fig.1, 0035-0038].

Regarding claim 9, Schroeter discloses a tire information having sensors (A,B,C,D) coupled with a reception module (13) and microprocessor (18) to monitor pressure and temperature of tires [fig.1, paragraphs 0008, 0035-0036 and abstract] comprising:

- the sensors (A,B,C,D) coupled with a reception module (13) and microprocessor (18) to monitor pressure and temperature of tires [fig.1, paragraphs 0011, 0024 and abstract];
- the reception module (13) having a plurality of antenna (A to N) [fig.1, paragraphs 0008-009, 0035-0036 and abstract];

- a single reception body (15) coupled with the reception module (13) [fig.1, 0008, 0035-0036 and abstract];

- the single reception body (15) coupled with the microprocessor (18) to detect the pressures and temperature has been programmed in A/D converter (16) and provide output signal to operator [fig.1, 0035-0038].

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-4, 6-8 & 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schroeter et al. (JP 10-104103) in view of Coulthard (U.S. 5,825,286).

Regarding claim 1, Schroeter discloses a tire information having sensors (A,B,C,D) coupled with a reception module (13) and microprocessor (18) to monitor pressure and temperature of tires [fig.1, paragraphs 0008, 0035-0036 and abstract] comprising:

- the reception module (13) having a plurality of antenna (A to N) / ports [fig.1, paragraphs 0008-009, 0035-0036 and abstract];

- a single reception body (15) coupled with the reception module (13) [fig.1, 0008, 0035-0036 and abstract];

- the single reception body (15) coupled with the microprocessor (18) to detect the pressures and temperature has been programmed in A/D converter (16) and provide output signal to operator [fig.1, 0035-0038].

The reference of Schroeter does not specifically mention details of control means configured to sequentially output at predetermined sampling time a command of data acquisition from a sensor module and next sampling as claimed by applicant.

However, Schroeter does teach control signal is inputted into a microcontroller by the analog-digital converter (16) for corresponding recovery and it is evaluated, the operator of a car can recognize it about the measured value and warning signal of the wheel has been program with identification code and specific time interval or period of assessment [paragraphs 0029,0035-0038 and abstract].

Furthermore, Coulthard teaches vehicular data and collection and transmission system having a tire monitor (10) with analog signals are amplified and subsequently digitized in an analog to digital converter (97) and the digital data is supplied to a microprocessor and controller (110) and under program control, a record of data reception from each wheel module is made, and if no reception is made within a programmed period of time from a specific module, an indication is provided to the operator in order of priority [fig.4, col.6, line 56 to col.7, line 13 and col.18, line 57 to col.19, line 9].

Therefore, it would have been obvious to one having ordinary skill in the art to use the teaching of Coulthard in the system of Schroeter for providing the same function as desired on any object.

Regarding claim 2, Schroeter discloses the single reception body (15) coupled with the microprocessor (18) to detect the pressures and temperature has been programmed in A/D converter (16) and provide output signal to operator [fig.1, 0038]; and

Coulthard teaches the indication is provided to the operator in order of priority if no reception is made within a programmed period of time from a specific module, [fig.4, col.18, line 57 to col.19, line 9 and col.20, lines 14-24].

Regarding claims 3-4, Schroeter discloses the tire information having sensors (A,B,C,D) coupled with a reception module (13) and microprocessor (18) to monitor pressure and temperature of tires [fig.1, paragraphs 0008, 0035-0036 and abstract].

Regarding claim 6, Schroeter discloses the tire information having amplifier device for receiving & transmitting signals [0021, 0032]; and

Coulthard discloses the tire information having amplifier device for receiving & transmitting signals [fig.4, col. col.7, lines 5-14].

Regarding claims 7-8 & 14, Coulthard teaches the vehicular data and collection and transmission system having a tire monitor (10) with analog signals are amplified and subsequently digitized in an analog to digital converter (97) and the digital data is supplied to a microprocessor and controller (110) and under program control, a record of data reception from each wheel module is made, and if no reception is made within a

programmed period of time from a specific module, an indication is provided to the operator in order of priority [fig.4, col.6, line 56 to col.7, line 13 and col.18, line 57 to col.19, line 9].

Regarding claims 10-11 & 15, Schroeter discloses the tire information having sensors (A,B,C,D) coupled with a reception module (13) and microprocessor (18) to monitor pressure and temperature of tires [fig.1, paragraphs 0008, 0035-0036 and abstract];

- the reception module (13) having a plurality of antenna (A to N) / ports [fig.1, paragraphs 0008-009, 0035-0036 and abstract].
- the tire information having amplifier device for receiving & transmitting signals [0021, 0032]; and

Coulthard discloses the tire information having amplifier device for receiving & transmitting signals [fig.4, col. col.7, lines 5-14].

Regarding claims 12-13, Schroeter discloses the tire information having sensors (A,B,C,D) coupled with a reception module (13) and microprocessor (18) to monitor pressure and temperature of tires [fig.1, paragraphs 0008, 0035-0036 and abstract].

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Handfield et al. (U.S. 5,540,092).
- Kulka et al. (U.S. 6,087,930).
- Derbyshire et al. (U.S. 6,271,748).
- Konchin et al. (U.S. 6,362,732).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung T. Nguyen whose telephone number is (571) 272-2982. The examiner can normally he reached on Monday to Friday from 9:00 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hofsass, Jeffrey can be reached on (571) 272-2981. The fax phone number for this Group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

HUNG NGUYEN
PRIMARY EXAMINER

Examiner: Hung T. Nguyen

Date: Aug. 21, 2007